

Bulletin of the Mineralogical Society of Southern California

Volume 92 Number 3 - March, 2019

The 966th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

March 8th, 2019 at 7:30 P.M.

**Pasadena City College
Geology Department, E-Building, Room 220
1570 E Colorado Blvd., Pasadena**

***Program : The Golden Age of Rockhounding, 1946 – 1972:
Presented by Steve Mulqueen***

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Remember: If you change your email or street address, you must let the MSSC Editor and Membership Chair know or we cannot guarantee receipt of future Bulletins

About the Program: The Golden Age of Rockhounding, 1946 – 1972: Presented by Steve Mulqueen

Introduction: The beginning of the *Golden Age of Rockhounding* in the United States can be traced back to the mid-1940s, immediately after World War II. The hobby of rockhounding evolved into intense learning experiences associated with the processes involved with searching, collecting, enhancing and the exhibiting of rocks, minerals and fossils, including dedicated memberships in related clubs and societies.

Today, rockhounding continues to be a popular hobby. However, the *Golden Age of Rockhounding* ended as fellow rockhounds began experiencing the blatant closure of large tracts of Public Lands and the blockage of access roads. This action prevented the exploration, by motor vehicle, for the gathering of scientific specimens at many remote sites throughout the country.

On January 1, 1970, the National Environmental Policy Act (NEPA) was enacted by Congress. The end of the “*Golden Age*” occurred during the early 1970s, as the Environmental Movement reached major crossroads in influencing Government control of human activity in many facets of society and industry.

An estimated interval for the term *Golden Age of Rockhounding* would be the range of the years 1946 – 1972. This time-interval is interpretive, and is applied as an important parameter for the purpose of this lecture. The lecture will feature numerous color images of rockhounding field trips held during the 1950s and 1960s.

Post World War 1940s: The beginning of the *Golden Age of Rockhounding* during the Post-War period of the 1940s was influenced by many factors:

- Post-War economic boom begins.
- Factories shift from wartime to peacetime production.
- Oversupply of crude oil and refined products emerge.
- Roads and highways are in reasonably good shape.
- Military surplus equipment is available and abundant.
- Remote desert regions of the West are wide-open for travel.

These conditions set the stage for a period of travel and exploration, during a time when many countries throughout the world were struggling to feed their people and to rebuild their cities during the years of post-war recovery.

Photo Collection: Most of the images in this PowerPoint presentation are from the Bruno & Opal Benson Collection and from the Bill & Myrle Kirk Collection. The Bensons and Kirks were active members of the Ventura Gem & Mineral Society (VGMS) from the 1950s to late 1990s. Bruno led several hundred field trips during his lifetime for the VGMS, for the California Federation of Mineralogical Societies and many other groups. Photos that feature field trips in this presentation were digitized from 35mm color slides. The two slide collections were donated to the VGMS by both the Benson family and the Kirk Family.

Biography

Stephen Mulqueen is a geologist and active member of the MSSC and Ventura Gem & Mineral Society. In 1978, Steve earned a Bachelor of Science degree in Geology at Cal Poly Pomona. He began his career while employed by American Borate Company at their Billie Borate Mine in Death Valley, CA.

From 1979 – 1982, Steve worked as a geologist at Kerr-McGee Chemical Corporation’s solution mining operations at Searles Lake near Trona, CA. Much of his career involved over 27 years with the State of California, including employment with the Dept. of Conservation (Division of Oil & Gas) and later with the California State Lands Commission.

One of his hobbies includes rockhounding, in search of unusual and rare rocks, minerals and fossils. Some of his discoveries have been donated to college geology labs or used as grade school educational material.

He volunteers his free time conducting field trips, writing professional articles and presenting lectures. Steve says his efforts at community outreach gives him the opportunity to share what he knows and enables him to

learn from others in the exchange of information. Steve is currently retired and resides in St. George, Utah.

From the Editor:

This has been an interesting month for MSSC, The Micro Mineral Conference, a cancelled general Meeting and a field trip. The Conference went well and we have a pictorial report from Rudy Lopez later in the Bulletin. Our Feb 18th meeting was cancelled as the building was closed for renovations...Hopefully it will be open in time for the March Meeting! There was a field trip last weekend, but no report received as yet.

I did find a lovely report on the Conference posted by attendee Anthony Ferrari in the LA Rocks yahoo group dated February 6, 2019. He also included a link to his pictures from the conference as well. If you are interested, using Control/Click on the following link (or just a copy/paste of the link) should bring you there. Linda Elsnau

https://groups.yahoo.com/neo/groups/LA-fRocks/conversations/topics/15902;_ylc=X3oDMTJycXJkcjVwBF9TAzk3MzU5NzE1BGdycElkAzEyNTgzMTgEZ3Jwc3BJZAMxNzA1MDYyNTAxBG1zZ0lkAzE1OTAyBHNIYwNkbXNnBHNSawN2bXNnBHN0aW1lAzE1NDk1ODc0ODM-

FROM THE PRESIDENT: Interesting Minerals, A to Z. Installment 15, the letter O by George Rossman

Osumilite, $\text{KMg}_2\text{Al}_3(\text{Al}_2\text{Si}_{10})\text{O}_{30}$, was originally confused with cordierite, $\text{Mg}_2\text{Al}_3(\text{AlSi}_5)\text{O}_{18}$ (**Figures. 1,2,3**). Cordierite is a biaxial mineral (3 different indices of refraction; one each along each of the three crystal axes) whereas osumilite is uniaxial (2 different indices of refraction; one along the c-axis and the other perpendicular to it).



Figure 1. A cordierite crystal from Bodenmais Photo: Mark Garcia



Figure 2. Turbid cordierite from Kameoka, Bavaria, Germany. Kyoto Prefecture, Japan, known as Sakurajima (Cherry Blossom Stone). Photo: G. Rossman

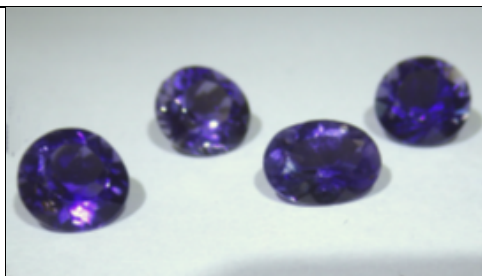


Figure 3. Cordierite gems from India Photo: G. Rossman

That difference in optical properties led Akiho Miyashiro to make a closer examination of one such uniaxial crystal he believed to be cordierite. He thought, at first, that it was just a high-temperature hexagonal form of cordierite (the mineral indialite, named after the type locality in India). It wasn't. It was a crystal new to science. He named it after its type locality, the Osumi Peninsula, Japan, in 1953.

Miyashiro A (1953) Osumilite, a New Mineral, and Cordierite in Volcanic Rocks. Proceedings of the Japan Academy 29, p321-323.

Really nice osumilite can be found at Obsidian Cliffs, near McKenzie Pass, in Lane County, Oregon (**Figure 4**). For many years, this was a popular collecting location. It is now part of a wilderness area and closed to collecting.

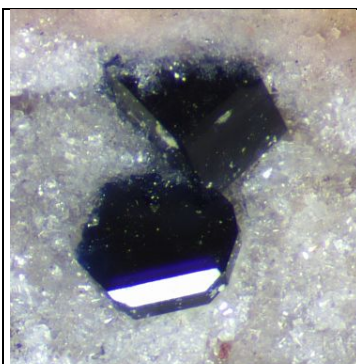


Figure (4). Osumilite from Obsidian Cliffs, Lane County, Oregon.
Photo: G. Rossman



Figure 5. Osumilite from the Funtanafigu Quarry, Sardinia, Italy. *Photo: G. Rossman*

In addition to Obsidian Cliffs, nice osumilite occurs in volcanic rocks in other parts of the world including Monte Arci, Sardinia, Italy (**Figure. 5**), Shimizu, Kagoshima, Japan; and Nickenich, Germany.

Like all minerals described prior to 1959, the name “osumilite” is grandfathered by the International Mineralogical Association. Proposals for new minerals described after that time have to go through a vetting and approval process by an international commission of mineralogists representing many different countries.

Like most minerals, osumilite commonly has components in it other than those indicated by the ideal formula. A more general chemical formula would be $(K,Na)(Mg,Fe^{2+})_2(Al,Fe^{3+})_3(Si,Al)_{12}O_{30}$. In fact, there is a group of 22 structurally related minerals known as the osumilite group. Each of these minerals has a double ring of silicate tetrahedra as shown in **Figure 6**. Single ring silicates like beryl and cordierite are well-known. In the double-ring silicates, the atoms in the tetrahedral sites often are just silicon, but some members of the group can also have aluminum there as well. Two other more commonly known members of the osumilite group are discussed below.

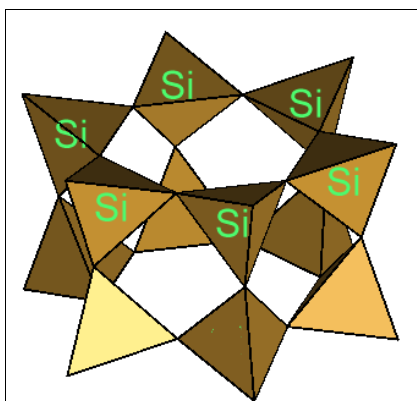


Figure 6. A double six-membered ring found in the structure of the osumilite group minerals.



Figure 7. Poudretteite from Mogok Township, Myanmar.
Photo G Rossman



Figure 8. A 3.8 carat gem poudretteite from Mogok, Myanmar.
Photo: PalaGems.com



Figure 9. Sugilite from the Wessels Mine, South Africa.
Photo: Mark Garcia

Poudretteite, $KNa_2(B_3Si_{12})O_{30}$, (**Figure 7**) was first discovered at Mont St. Hilaire, Quebec, Canada, and named after the Poudrette family who owned and operated the quarry where the mineral was first discovered. Much larger crystals have been found in Myanmar. Sometimes the crystals from Myanmar are both transparent and pink which give rise to one of the rarest known gemstones (**Figure 8**).

Sugilite, $KNa_2Fe^{3+}_2(Li_3Si_{12})O_{30}$, (**Figure 9**) was first described in 1976 as a new mineral from Iwagi Islet, Japan. It was named after petrologist Ken-ichi Sugi who first found the mineral in 1944. Beautiful specimens occur at the Wessels Mine in South Africa. There, they are colored by manganese in the 3+ oxidation state.

Osumilite is often dark blue. Like many other blue minerals, it owes its color to the fact that iron enters osumilite in two different oxidation states; Fe^{2+} and Fe^{3+} . We have heard about that before where light

makes electrons move between the Fe²⁺ and Fe³⁺ atoms. Mixed up oxidation states strike again.

MINUTES of the February 15, 2019 Meeting

The February meeting of MSSC was cancelled at the last minute when we found the building closed due to renovations. The speaker will be rescheduled to a later date.

List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	April 12, 2019	Bruce Carter – Mineralogical - Identifying Mega Floods In Southern California
	May 10, 2019	The Webers- Rainforest Jasper of Queensland Australia
	June 14, 2019	Justin Seastrand: Forest Service – Land Rights
	July 12, 2019	Peter Goetz: Slovakian Opal - Beautiful opal mines in eastern Slovakia
Board Meeting	March 3, 2019	Board Meeting at Bruce Carter's house
Field Trip		No Field Trip Scheduled at this time

Note: Dates and programs shown above are subject to change. Check your bulletins to confirm final information each month.

L.A. Nature Fest

Mark your calendars for March 16 and 17, 2019!

Join us for a two-day festival as we celebrate L.A.'s wild side! There's a surprising amount of nature in Los Angeles, and the more you know how to look for it, the more you'll see. You'll be blown away by L.A.'s wild side: the plants, the animals, and the people devoted to protecting and studying them.

MSSC WILL ATTEND THE ANNUAL L.A. NATURE FEST.

We will pass out a mineral to every kid that comes to our tables. We will also have Crystal models for the kids to cut out and paste together.

Volunteers are needed to assist with the cutouts and handing out the minerals.

Please contact Rudy Lopez programs@mineralsocal.org

2019 PACIFIC MICROMOUNT CONFERENCE, February 1-3, 2019 By: Rudy Lopez

The 2019 Pacific Micromount Conference was held at the Fallbrook Mineral Museum on Friday, February 1st and Saturday February 2nd. There were about 40 in attendance for this event. Members of the Fallbrook Gem & Mineral Society, along with Al Wilkins set up all the tables. Angie Guzman and Rudy Lopez set up the dollar tables and made sure there was plenty to sell.



Special thanks to Garth Bricker for assisting us on the setup.

About 3:00pm the eager micromounters were showing up. Tables started filling up quickly and it was down to business.



The early birds got the best locations not just for their microscopes, but for a clear view of the presenters



Greeting old friends and telling stories.



Angie Guzman, Joanna Ritchey, and Anna Hagstrom. Anna and I were swapping food recipes most of the time. Anna and Janice Bricker brought treats for everyone. Thank you Anna & Janice

There were great presentations



Michael Cox & Ted Hadley
**“McDermitt Mine Update: Geology,
Microminerals, & Fun”**

(This presentation is available on the MSSC website as a PDF)



Marek Chorazewicz:
“Different Minerals”



Paul Adams
“The Copper World & Mohawk Mines, San Bernardino County CA”



Robert Housley
“The use of Raman Spectroscopy in Identifying New and Rare Secondary Tellurium Minerals”

The event was a great success and lots of fun. Plenty of dollar tables minerals and give away table minerals were available throughout the entire event.



The event was a great success and I am looking forward to next years conference. Spoke with old friends and found some new friends.

I want to thank the Members of the Fallbrook Gem & Mineral members for letting MSSC have this event and for all their hard work.

If you are in Fallbrook and have not been to the museum you're missing out. The museum houses the Garth Bricker: 30 years of Collecting at the Red Cloud Mine.

All Photographs provided by Rudy Lopez

Ride Share Listing

Can You Provide A Ride?

Would You Like Company On The Drive To Meetings?

We have heard from several of our members that they would like to ride-share with someone to the meetings. We will list the names, general location and either a phone number or an email address of anyone who would like to connect for a ride-share. If you would like to catch a ride or would like company for the trip, let me know at msscbulletin@earthlink.net and I'll put the information in this section of the bulletin. After that, any final arrangements made are up to you. Also, If you make a connection that works for you, let me know so that I can remove your information from the bulletin. The Editor

Looking for	Who	Where	Contact at
A ride	Richard Stamberg	North Orange County, near Cal State Fullerton	See email bulletin

March Featured Mineral: **Realgar**

Formula: As₄S₄

Crystal System: Monoclinic

Name: From Arabic "rahj al-gahr", powder of the mine. Known as a mineral pigment in Byzantium (essentially Asia Minor and the Balkan Peninsula) at least by the beginning of the thirteenth century and presumably having a name by that time. An old realgar locality on the Balkan Peninsula is found at Allchar, Republic of Macedonia.



© irocks.com photo

Realgar As₄S₄

Locality: Baia Sprie, Maramureș,
Romania 11.3 cm x 4.9 cm x 4.4 cm



© irocks.com photo

Realgar As₄S₄

Locality: Royal Reward Mine,
Green River Gorge, Franklin, King
Co., Washington, USA
2.2 cm x 1.1 cm x 0.8 cm



© irocks.com photo

Realgar As₄S₄

Locality: Jiepaiyu Mine, Shimen
deposit, Shimen Co., Changde,
Hunan, China
3.7 cm x 3 cm x 2 cm



© irocks.com photo

Realgar As₄S₄

Locality: Royal Reward Mine,
Green River Gorge, Franklin, King
Co., Washington, USA
3.7 cm x 2.7 cm x 1.7 cm

OTHER FREE THINGS TO DO...by Ann Meister

The **Von Kármán Lecture** on *Thursday/Friday* **March 14 and 15** at 7 PM. The speakers are Jessie Christiansen and Karl Stapelfeldt. The title of the talk is “**The Golden Age of Exoplanet Exploration.**” Since the discovery of the first exoplanet orbiting a sun-like star in 1995, several thousand more have been discovered. We’ve peered into the atmospheres of some, and we’ve found whole families of planets orbiting strange stars -- many in configurations starkly different from our own. We’ve learned a lot from NASA’s Kepler mission, which launched 10 years ago and ceased operations in November 2018. A new NASA planet-hunting spacecraft called TESS, which began science operations as Kepler was winding down, will give us thousands of new discoveries in the coming years. And the Spitzer Space Telescope has provided us valuable insights into what these worlds might be like. This show will look at the state of exoplanet science and give us a view of

what future discoveries may be around the corner. ** Thursday is at the Von Kármán Auditorium at JPL and Friday is at Ramo Auditorium at Caltech.

There will be NO **Watson Lectures** at Caltech's Beckman Auditorium in March.

There will be NO **UCLA Meteorite Gallery** lecture in March. The Meteorite Gallery in Geology room 3697 is open with a docent present every Sunday from 1 till 4. The lecture, which is always on a Sunday afternoon at 2:30 pm, is in room 3656 near the Meteorite Gallery.

MSSC Advertisement Policy:

Mineral-related ads are allowable in the MSSC bulletin. Below is the price per month

	Business Card	\$5.00	
	1/3 page	\$10.00	
	1/2 page	\$20.00	
	Full Page	\$35.00	

In addition, any advertiser who purchases 12 months of space in advance will receive a discount of 12 months for the price of 10 months. The copy for the ads should be mailed to the editor at bulletin@mineralsocal.org and the payment should be sent to the
MSSC Treasurer 1855 Idlewood Road, Glendale, CA 91202

Calendar of Events:



Mark Your Calendars Now!

March 8, 9 & 10, 2019

80th CFMS SHOW & CONVENTION

**Hosted by the Pasadena Lapidary Society,
 Fairplex, Building 6, Pomona, California**

Show Hours: FRI & SAT: 10 a.m. - 5 p.m. SUN: 10 a.m. - 4 p.m.

[VISIT PASADENA LAPIDARY SOCIETY'S SITE for SHOW DETAILS](#)

[Advance Registration Form](#)

[CFMS Meeting Schedule](#)

[Case Display Registration](#)

[Site Also see Visitor Lodging](#)



MARCH, 2019

March 2 - 3: VENTURA, CA

Ventura Gem & Mineral Society
Ventura County Fairgrounds
10 West Harbor Blvd.
Hours: Sat 10 - 5; Sun 10 - 4
Website: vgms.org

March 8, 9 & 10: VICTORVILLE, CA

Victorville Valley Gem & Mineral Club
Stoddard Wells Tailgate
Stoddard Wells Road off Dale Evans Pkwy
Hours: 9 - 5 daily
Website: vvgmc.org [Show Page](#)

March 16 - 17: LEMOORE, CA

Lemoore Gem & Mineral Club
Trinity Hall
470 Champion Street
Hours: Sat 10 - 6; Sun 10 - 4
Website: Coming soon! (Under construction)

March 30 - 31: TORRANCE, CA

South Bay Lapidary & Mineral Society
Ken Miller Recreation Center
3341 Torrance Blvd (entrance on Madrona Ave)
Hours: Sat. 10 - 5; Sun. 10 - 4
Website:
southbaylapidaryandmineralsociety.com [Show Page](#)

APRIL

April 5, 6 & 7: VISTA, CA

Vista Gem & Mineral Society
Antique Gas & Steam Engine Museum
2040 North Santa Fe
Hours: 9 - 5 daily
Website: vistarocks.org

April 13 - 14: PASO ROBLES, CA

Santa Lucia Rockhounds
Paso Robles Event Center
2198 Riverside Avenue
Hours: 10 - 5 Daily
Website: slockhounds.org [Show Page](#)

April 13 - 14: THOUSAND OAKS, CA

Conejo Gem & Mineral Club
Borchard Park Community Center
190 Reino Road
Hours: 10 - 5 Saturday; 10 - 5, Sunday 10 - 4
Website: cgamc.org

April 27 - 28: LANCASTER

Antelope Valley Gem & Mineral Society
Antelope Valley Fairgrounds
2551 West Avenue H (Hwy. 14 & Ave. H)
Hours: 10 - 5 daily
Website: avgem.weebly.com

MAY

May 3, 4, 5 & 6: YUCAIPA, CA

Yucaipa Valley Gem & Mineral Society
Yucaipa Music & Arts Festival
Yucaipa Blvd and Adams Street
Hours: Fri 6 pm-10 pm; Sat 12 noon-10 pm; Sun 12 noon-6 pm
Website: yvgms.org

May 4 - 5: ANAHEIM, CA

Searchers Gem & Mineral Society
Brookhurst Community Center
2271 W. Crescent Avenue
Hours: Sat 10 - 5; Sun 10 - 4:30
Website: searchersrocks.org

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2019 MSSC Officers:

OFFICERS		
President	George Rossman	president@mineralsocal.org
Vice President	Renee Kraus	vicepresident@mineralsocal.org
Secretary	Angie Guzman	secretary@mineralsocal.org
Treasurer	Jim Kusely	treasurer@mineralsocal.org
CFMS Director	Jo Anna Ritchey	
Past President	Ann Meister	
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2019--2020	Bob Housley	
2019--2020	Leslie Ogg	
2018-2019	Pat Caplette	
2018-2019	Pat Stevens	
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Membership	Cheryl Lopez	membership@mineralsocal.org
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Program and Education	Rudy Lopez	programs@mineralsocal.org
Publicity	Linda Elsnau	bulletin@mineralsocal.org
Webmaster	Leslie Ogg	webmaster@mineralsocal.org

About the Mineralogical Society of Southern California

Organized in 1931, the Mineralogical Society of Southern California, Inc. is the oldest mineralogical society in the western United States. The MSSC is a member of the California Federation of Mineralogical Societies, and is dedicated to the dissemination of general knowledge of the mineralogical and related earth sciences through the study of mineral specimens. The MSSC is a scientific non-profit organization that actively supports the geology department at Pasadena City College, Pasadena, California. Support is also given to the Los Angeles and San Bernardino County Museums of Natural History. The Bulletin of the Mineralogical Society of Southern California is the official publication of the Mineralogical Society of Southern California, Inc.

The MSSC meetings are usually held the second Friday of each month, January, February and August excepted, at 7:30 p.m. in Building E, Room 220, Pasadena City College, 1570 E Colorado Boulevard, Pasadena, California. The annual Installation Banquet is held in January, and the annual Picnic and Swap Meeting is held in August. Due to PCC holidays, meetings may vary. Check the Society website for details.

The Society also sponsors the annual Pacific Micro mount Symposium held at the San Bernardino County Natural History Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$20.00 for an individual membership, \$30.00 for a family membership. Bulletins are delivered by email, there is an additional annual \$20.00 fee if you prefer paper bulletins mailed to your address. The Society's contact information:

Mineralogical Society of Southern California

1855 Idlewood Rd.,

Glendale, CA 91202-1053

E-mail: treasurer@mineralsocal.org

Website: www.mineralsocal.org **The Mineralogical Society of California, Inc.**

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Glendale, CA 91214-2415

To:



**With Knowledge Comes
Appreciation**

***Your MSSC
Bulletin Is
Here!***